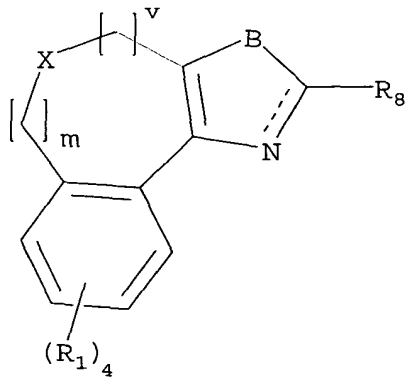
Amendments to the claims:

Please cancel claims 1, 15, 22 and 43 to 46 without disclaimer or prejudice to applicants' right to pursue the subject matter of these claims in a future continuation or divisional application.

Claims 1-46 (canceled)

Please add new claims 47 to 52 as follows:

47. (New) A method of treating a subject suffering from an abnormality wherein the abnormality is alleviated by decreasing the activity of a human Y5 receptor comprising administering to the subject a therapeutically effective amount of a compound having the following structure:



wherein each R_1 is independently H, F, Cl, Br, -CN, -OH, -NO_2, -NR_5R_6, -SO_2R_5, -$(CH_2)_nOR_5$, -$(CH_2)_nCONR_5R_6$, -$(CH_2)_nNR_5COR_5$, perfluoroalkyl, polyfluoroalkyl, aminoalkyl, or straight chained or branched C_1-C_7 alkyl;

wherein R_5 is independently H; or straight chained or branched C_1-C_7 alkyl;

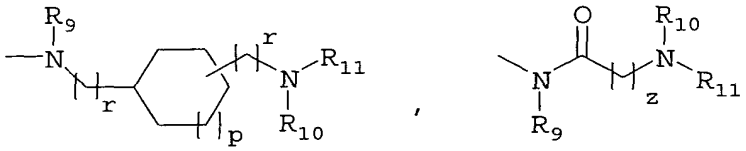
wherein R_6 is independently H; or straight chained or branched C_1-C_7 alkyl;

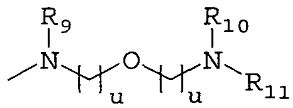
wherein B is O, NH or S;

wherein X is CHR_5, O or NR_5;

wherein each n independently is an integer from 0 to 6 inclusive;

wherein R_8 is





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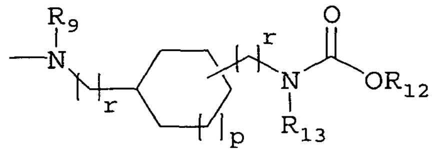

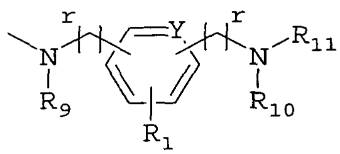

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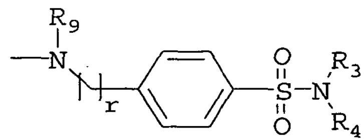

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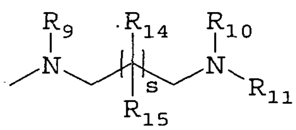

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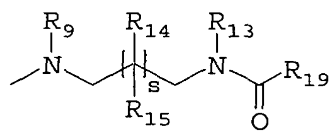

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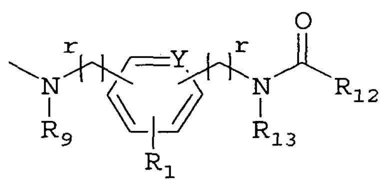
or 

;

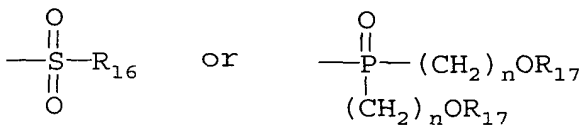
wherein Y is C or N;

wherein R_7 is independently straight chained or branched C_1-C_7 alkyl;

wherein R_9 is independently H; or straight chained or branched C_1-C_4 alkyl;

wherein R_{10} is independently H; or straight chained or branched C_1-C_4 alkyl;

wherein R_{11} is



wherein R_{12} is H, straight chained or branched C_1-C_7 alkyl, $(CH_2)_nOR_{17}$, or $O(CH_2)_uOR_{17}$; provided that when X is O, R_{12} cannot be methyl;

wherein R_{13} is independently H; $-(CH_2)_uOR_5$; $-(CH_2)_tCONR_5R_6$; $-(CH_2)_uNR_5COR_5$; $-(CH_2)_tCOR_7$; $-(CH_2)_tCO_2R_5$; $-(CH_2)_uNR_5R_6$; $-(CH_2)_uCN$; straight chained or branched C_1-C_7 alkyl; C_1-C_7 alkyl in which the C_2-C_7 atoms may be optionally substituted with one or more F or Cl; C_3-C_7 cycloalkyl-C_1-C_7 alkyl; straight chained or branched C_2-C_7 alkenyl or alkynyl; or C_3-C_7 cycloalkyl; phenyl or C_1-C_6 phenylalkyl; wherein the phenyl or C_1-C_6 phenylalkyl may be substituted with one or more of F, Cl, -CN, $-NO_2$, $-NR_5R_6$, $-SO_2R_5$, $-(CH_2)_nCOR_7$, $-(CH_2)_nOR_5$, $-(CH_2)_nCONR_5R_6$, $-(CH_2)_nNR_5COR_5$, $-(CH_2)_nCO_2R_5$, $-(CH_2)_nSO_2NR_5R_6$, straight chained or branched C_1-C_7 alkyl, perfluoroalkyl, polyfluoroalkyl, or aminoalkyl;

or R_{12} and R_{13} together with the amide linkage to which they are attached are pyrrolidinonyl, piperidonyl, or oxazolidinonyl; provided that when X is O, R_{12} and R_{13} cannot be oxazolidinonyl;

wherein R_{14} is H; straight chained or branched C_1-C_4 alkyl; F; or $-(CH_2)_rOR_5$;

wherein R_{15} is H, straight chained or branched C_1-C_4 alkyl, or F;

with the proviso that when R_{14} is -OH, R_{15} cannot be F;

wherein R_{16} is NR_3R_4; perfluoroalkyl, unsubstituted straight chained or branched C_1-C_7 alkyl; substituted straight chained or branched C_2-C_7 alkyl, wherein the C_2-C_7 alkyl may be substituted with one or more of F, Cl, -CN, $-NR_5R_6$, $-SO_2R_5$, $-(CH_2)_nCOR_7$, $-(CH_2)_nOR_5$, $-(CH_2)_nCONR_5R_6$, $-(CH_2)_nNR_5COR_5$, $-(CH_2)_nCO_2R_5$, $-(CH_2)_nOCF_3$, perfluoroalkyl, polyfluoroalkyl, or aminoalkyl, straight chained or branched C_2-C_7 alkenyl or alkynyl, or C_3-C_7 cycloalkyl or cycloalkenyl; phenyl, heteroaryl or C_1-C_7 phenylalkyl, wherein the phenyl, heteroaryl or C_1-C_7 phenylalkyl may be substituted with one or more of F, Cl, Br, -CN, $-NO_2$, $-NR_5R_6$, $-(CH_2)_nNR_5COR_5$, $-SO_2R_5$, $-(CH_2)_nCOR_7$, $-(CH_2)_nOR_5$, $-(CH_2)_nCONR_5R_6$, $-(CH_2)_nCO_2R_5$, $-(CH_2)_nSO_2NR_5R_6$, ethylenedioxy, methylenedioxy, straight chained or branched C_1-C_7 alkyl, perfluoroalkyl, polyfluoroalkyl, or aminoalkyl, straight chained or branched C_2-C_7 alkenyl or alkynyl, or C_3-C_7 cycloalkyl or cycloalkenyl; quinolinyl, 1-napthyl, 2-napthyl, or 2,1,3-benozthiadiazolyl; wherein the quinolinyl, 1-napthyl, 2-napthyl, or 2,1,3-benozthiadiazolyl may be substituted with one or more of F, Cl, Br, -CN, $-NO_2$, $-NR_5R_6$, $-(CH_2)_nNR_5COR_5$, $-SO_2R_5$, $-(CH_2)_nCOR_7$, $-(CH_2)_nOR_5$, $-(CH_2)_nCONR_5R_6$, $-(CH_2)_nCO_2R_5$, $-(CH_2)_nSO_2NR_5R_6$, ethylenedioxy, methylenedioxy, straight chained or branched C_1-C_7 alkyl, perfluoroalkyl, polyfluoroalkyl, or aminoalkyl;

with the proviso that when X is O and R_8 is $NR_9(CH_2)_uO(CH_2)_uNR_{10}R_{11}$, R_{16} cannot be methyl;

wherein R_3 is independently H; $-(CH_2)_uOR_5$; $-(CH_2)_tCONR_5R_6$; $-(CH_2)_uNR_5COR_5$; $-(CH_2)_tCOR_7$; $-(CH_2)_tCO_2R_5$; $-(CH_2)_uNR_5R_6$; $-(CH_2)_uCN$; straight chained or branched C_1-C_7 alkyl; straight chained or branched C_2-C_7 alkenyl or alkynyl; or C_3-C_7 cycloalkyl or cycloalkenyl; phenyl, C_1-C_6 phenylalkyl, or C_1-C_6 heteroarylalkyl; wherein the phenyl, C_1-C_6 phenylalkyl or C_1-C_6 heteroarylalkyl may be substituted with one or more of F, Cl, Br, -CN, $-NO_2$, $-NR_5R_6$, $-SO_2R_5$, $-(CH_2)_nCOR_7$, $-(CH_2)_nOR_5$, $-(CH_2)_nCONR_5R_6$, $-(CH_2)_nNR_5COR_5$, $-(CH_2)_nCO_2R_5$, $-(CH_2)_nSO_2NR_5R_6$, straight chained or branched C_1-C_7 alkyl, perfluoroalkyl, polyfluoroalkyl, or aminoalkyl, straight chained or branched C_2-C_7 alkenyl or alkynyl, or C_3-C_7 cycloalkyl or cycloalkenyl;

wherein R_4 is independently H; $-(CH_2)_uOR_5$; $-(CH_2)_tCONR_5R_6$; $-(CH_2)_uNR_5COR_5$; $-(CH_2)_tCOR_7$; $-(CH_2)_tCO_2R_5$; $-(CH_2)_uNR_5R_6$; $-(CH_2)_uCN$; straight chained or branched C_1-C_7 alkyl; straight chained or branched C_2-C_7 alkenyl or alkynyl; or C_3-C_7 cycloalkyl or cycloalkenyl; phenyl or C_1-C_6 phenylalkyl; wherein the phenyl or C_1-C_6 phenylalkyl may be substituted with one or more of F, Cl, Br, -CN, $-NO_2$, $-NR_5R_6$, $-SO_2R_5$, $-(CH_2)_nCOR_7$, $-(CH_2)_nOR_5$, $-(CH_2)_nCONR_5R_6$, $-(CH_2)_nNR_5COR_5$, $-(CH_2)_nCO_2R_5$, $-(CH_2)_nSO_2NR_5R_6$, straight chained or branched C_1-C_7 alkyl, perfluoroalkyl, polyfluoroalkyl, or aminoalkyl, straight chained or branched C_2-C_7 alkenyl or alkynyl, or C_3-C_7 cycloalkyl or cycloalkenyl;

or R_3 and R_4 taken together with the nitrogen atom to which they are attached are 1-azetidinyl, 1-pyrrolidinyl, 1-piperidinyl, or 1H-azepanyl, wherein the 1-azetidinyl, 1-pyrrolidinyl, 1-piperidinyl, or 1H-azepanyl is substituted with one or more of F, -CN, $-(CH_2)_nNR_5R_6$, $-SO_2R_5$, $-(CH_2)_nCOR_7$, $-(CH_2)_nOR_5$, $-(CH_2)_nCONR_5R_6$, $-(CH_2)_nNR_5COR_5$, $-(CH_2)_nCO_2R_5$, straight chained or branched C_1-C_7 alkyl, perfluoroalkyl, polyfluoroalkyl, or aminoalkyl, straight chained or branched C_2-C_7 alkenyl or alkynyl, or C_3-C_7 cycloalkyl or cycloalkenyl, or phenyl or heteroaryl; wherein if $-(CH_2)_nNR_5R_6$, $-(CH_2)_nOR_5$, or $-(CH_2)_nNR_5COR_5$ are in the 2-position, then n is not 0; wherein the phenyl or heteroaryl may be substituted with one or more of F, Cl, Br, -CN, $-NO_2$, $-NR_5R_6$, $-SO_2R_5$, $-(CH_2)_nCOR_7$, $-(CH_2)_nOR_5$, $-(CH_2)_nCONR_5R_6$, $-(CH_2)_nNR_5COR_5$, $-(CH_2)_nCO_2R_5$, $-(CH_2)_nSO_2NR_5R_6$, straight chained or branched C_1-C_7 alkyl, perfluoroalkyl, polyfluoroalkyl, or aminoalkyl, straight chained or branched C_2-C_7 alkenyl or alkynyl, or C_3-C_7 cycloalkyl or cycloalkenyl;

or R_3 and R_4 taken together with the nitrogen atom to which they are attached are morpholinyl, thiomorpholinyl, [1,4]oxazepanyl, [1,4]thiazepanyl, piperazinyl, or [1,4]diazepanyl is optionally substituted with straight chained or branched C_1-C_5 alkyl or $(CH_2)_tOR_5$; and wherein the nitrogen atom of the piperazinyl or [1,4] diazepanyl ring may be optionally substituted with $-(CH_2)_uOR_5$; $-COR_5$; straight chained or branched C_1-C_5 alkyl; or phenyl; wherein the phenyl may be substituted with one or more of F, Cl, Br, -CN, $-NO_2$, $-NR_5R_6$, $-(CH_2)_nOR_5$, straight chained or

branched C_1-C_3 alkyl, perfluoroalkyl, polyfluoroalkyl, or aminoalkyl;

wherein R_{17} is H, straight chained or branched C_1-C_4 alkyl, perfluoroalkyl, or polyfluoroalkyl;

wherein R_{19} is $-(CH_2)_nOR_5$, $-NR_5R_6$, phenyl or heteroaryl, wherein the phenyl or heteroaryl may be substituted with one or more of F, Cl, Br, -CN, $-NO_2$, $-NR_5R_6$, $-(CH_2)_nNR_5COR_5$, $-SO_2R_5$, $-(CH_2)_nCOR_7$, $-(CH_2)_nOR_5$, $-(CH_2)_nCONR_5R_6$, $-(CH_2)_nC_2OR_5$, $-(CH_2)_nSO_2NR_5R_6$, ethylenedioxy, methylenedioxy, straight chained or branched C_1-C_7 alkyl, perfluoroalkyl, polyfluoroalkyl, or aminoalkyl, straight chained or branched C_2-C_7 alkenyl or alkynyl, or C_3-C_7 cycloalkyl or cycloalkenyl;

wherein m is 0 or 1;

wherein each p independently is an integer from 0 to 2 inclusive;

wherein each r independently is an integer from 0 to 3 inclusive;

wherein each s independently is an integer from 1 to 6 inclusive;

wherein t is an integer from 1 to 4 inclusive;

wherein each u independently is an integer from 2 to 4 inclusive;

wherein v is 1 or 2;

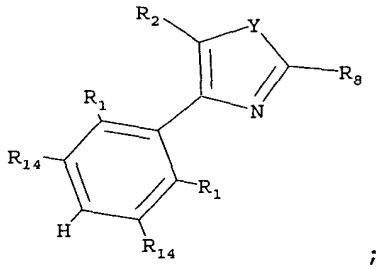
with the proviso that when v is 2, m is 0;

wherein z is an integer from 2 to 7;

or a pharmaceutically acceptable salt thereof to the subject, thereby alleviating the abnormality.

48. (New) The method of claim 47, wherein the abnormality is an eating disorder, obesity, bulimia nervosa, a sexual disorder, a reproductive disorder, depression, an epileptic seizure, hypertension, cerebral hemorrhage, congestive heart failure, or a sleep disturbance.

49. (New) A method of treating a subject suffering from an abnormality wherein the abnormality is alleviated by decreasing the activity of a human Y5 receptor comprising administering to the subject a therapeutically effective amount of a compound having the following structure:



;

wherein Y is O, S or NH;

wherein each R_{14} is independently is H, F, Cl, Br, -CN, -OH, $-NO_2$, $-NR_5R_6$, $-SO_2R_5$, $-(CH_2)_nOR_5$, $-SO_2C_6H_5$, $-SO_2NR_5R_6$, $-C_6H_5$, $-(CH_2)_nCONR_5R_6$, $-(CH_2)_nNR_5COR_5$, ethylenedioxy, methylenedioxy, perfluoroalkyl, polyfluoroalkyl, aminoalkyl, or straight chained or branched C_1-C_7 alkyl; or phenyl, heteroaryl or C_1-C_7 phenylalkyl; wherein the phenyl, heteroaryl or C_1-C_7 phenylalkyl may be substituted with one or more of F, Cl, Br, $-CF_3$, -CN, $-NO_2$, $-NR_5R_6$, $-SO_2R_5$, $-(CH_2)_nOR_5$, or straight chained or branched C_1-C_4 alkyl; provided that if one R_{14} is phenyl, heteroaryl or C_1-C_7 phenylalkyl, the other R_{14} is H;

wherein each R_1 independently is H, F, Cl, Br, -CN, -OH, $-NO_2$, $-NR_5R_6$, $-SO_2R_5$, $-(CH_2)_nOR_5$, $-SO_2C_6H_5$, $-SO_2NR_5R_6$, $-C_6H_5$, $-(CH_2)_nCONR_5R_6$, $-(CH_2)_nNR_5COR_5$, ethylenedioxy, methylenedioxy, perfluoroalkyl, polyfluoroalkyl, aminoalkyl, or straight chained or branched C_1-C_7 alkyl; or phenyl, heteroaryl or C_1-C_7 phenylalkyl; wherein the phenyl, heteroaryl or C_1-C_7 phenylalkyl may be substituted with one or more of F, Cl, Br, $-CF_3$, -CN, $-NO_2$, $-NR_5R_6$, $-SO_2R_5$, $-(CH_2)_nOR_5$, or straight chained or branched C_1-C_4 alkyl;

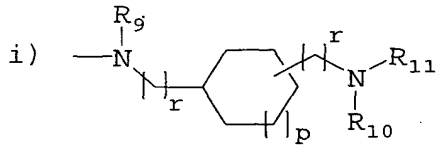
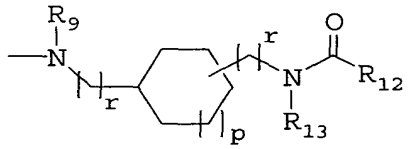
wherein R_2 is H, straight chained or branched C_1-C_4 alkyl; $-(CH_2)_tOR_5$, phenyl, optionally substituted with one or more of F, Cl, Br, $-CF_3$, -CN, $-NO_2$, $-NR_5R_6$, $-SO_2R_5$, $-(CH_2)_nOR_5$, or straight chained or branched C_1-C_4 alkyl;

wherein R_5 is independently H; or straight chained or branched C_1-C_7 alkyl;

wherein R_6 is independently H; or straight chained or branched C_1-C_7 alkyl;

wherein each n independently is an integer from 0 to 6 inclusive;

wherein R_8 is

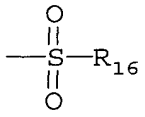
i)  or ii) 

provided that R_1 or R_{14} cannot be -OH, when R_8 is (ii);

wherein R_9 is independently H; or straight chained or branched C_1-C_4 alkyl;

wherein R_{10} is independently H; or straight chained or branched C_1-C_4 alkyl;

wherein R_{11} is



wherein R_{12} is H, straight chained or branched C_1-C_7 alkyl; or $(CH_2)_nOR_{17}$;

wherein R_{13} is independently $-(CH_2)_uOR_5$; $-(CH_2)_tCONR_5R_6$; $-(CH_2)_uNR_5COR_5$; $-(CH_2)_tCOR_7$; $-(CH_2)_tCO_2R_5$; $-(CH_2)_uNR_5R_6$; $-(CH_2)_uCN$; straight chained or branched C_1-C_7 alkyl; C_1-C_7 alkyl in which the C_2-C_7 atoms may be optionally substituted with one or more F or Cl; C_3-C_7 cycloalkyl-C_1-C_7 alkyl; straight chained or branched C_2-C_7 alkenyl or alkynyl; or C_3-C_7 cycloalkyl; phenyl or C_1-C_6 phenylalkyl; wherein the phenyl or C_1-C_6 phenylalkyl may be substituted with one or more of F, Cl, -CN, $-NO_2$, $-NR_5R_6$, $-SO_2R_5$, $-(CH_2)_nCOR_7$, $-(CH_2)_nOR_5$, $-(CH_2)_nCONR_5R_6$, $-(CH_2)_nNR_5COR_5$, $-(CH_2)_nCO_2R_5$, $-(CH_2)_nSO_2NR_5R_6$, or straight chained or branched C_1-C_7 alkyl, perfluoroalkyl, polyfluoroalkyl, or aminoalkyl;

or R_{12} and R_{13} together with the amide linkage to which they are attached are pyrrolidinonyl, piperidonyl, or oxazolidinonyl;

wherein R_7 is independently straight chained or branched C_1-C_7 alkyl;

wherein R_{16} is NR_3R_4; perfluoroalkyl, unsubstituted straight chained or branched C_1-C_7 alkyl; substituted straight chained or branched C_2-C_7 alkyl, wherein the C_2-C_7 alkyl may be substituted with one or more of F, Cl, -CN, $-NR_5R_6$, $-SO_2R_5$, $-(CH_2)_nCOR_7$, $-(CH_2)_nOR_5$, $-(CH_2)_nCONR_5R_6$, $-(CH_2)_nNR_5COR_5$, $-(CH_2)_nCO_2R_5$, $-(CH_2)_nOCF_3$, perfluoroalkyl, polyfluoroalkyl, or aminoalkyl, straight chained or branched C_2-C_7 alkenyl or alkynyl, or C_3-C_7 cycloalkyl or cycloalkenyl; or phenyl, heteroaryl or C_1-C_7 phenylalkyl; wherein the phenyl, heteroaryl or C_1-C_7 phenylalkyl may be substituted with one

or more of F, Cl, Br, I, -CN, $-NO_2$, $-NR_5R_6$, $-(CH_2)_nNR_5COR_5$, $-SO_2R_5$, $-(CH_2)_nCOR_7$, $-(CH_2)_nOR_5$, $-(CH_2)_nCONR_5R_6$, $-(CH_2)_nCO_2R_5$, $-(CH_2)_nSO_2NR_5R_6$, ethylenedioxy, methylenedioxy, straight chained or branched C_1-C_7 alkyl, perfluoroalkyl, polyfluoroalkyl, or aminoalkyl, straight chained or branched C_2-C_7 alkenyl or alkynyl, or C_3-C_7 cycloalkyl or cycloalkenyl; quinolinyl, 1-napthyl, 2-napthyl, or 2,1,3-benozthiadiazolyl; wherein the quinolinyl, 1-napthyl, 2-napthyl, or 2,1,3-benzothiadiazolyl may be substituted with one or more of F, Cl, Br, I, -CN, $-NO_2$, $-NR_5R_6$, $-(CH_2)_nNR_5COR_5$, $-SO_2R_5$, $-(CH_2)_nCOR_7$, $-(CH_2)_nOR_5$, $-(CH_2)_nCONR_5R_6$, $-(CH_2)_nCO_2R_5$, $-(CH_2)_nSO_2NR_5R_6$, ethylenedioxy, methylenedioxy, or straight chained or branched C_1-C_7 alkyl, perfluoroalkyl, polyfluoroalkyl, or aminoalkyl;

wherein R_3 is independently H; $-(CH_2)_uOR_5$; $-(CH_2)_tCONR_5R_6$; $-(CH_2)_uNR_5COR_5$; $-(CH_2)_tCOR_7$; $-(CH_2)_tCO_2R_5$; $-(CH_2)_uNR_5R_6$; $-(CH_2)_uCN$; straight chained or branched C_1-C_7 alkyl; straight chained or branched C_2-C_7 alkenyl or alkynyl; or C_3-C_7 cycloalkyl or cycloalkenyl; or phenyl, C_1-C_6 phenylalkyl, or C_1-C_6 heteroarylalkyl; wherein the phenyl, C_1-C_6 phenylalkyl, or C_1-C_6 heteroarylalkyl may be substituted with one or more of F, Cl, Br, -CN, $-NO_2$, $-NR_5R_6$, $-SO_2R_5$, $-(CH_2)_nCOR_7$, $-(CH_2)_nOR_5$, $-(CH_2)_nCONR_5R_6$, $-(CH_2)_nNR_5COR_5$, $-(CH_2)_nCO_2R_5$, $-(CH_2)_nSO_2NR_5R_6$, straight chained or branched C_1-C_7 alkyl, perfluoroalkyl, polyfluoroalkyl, or aminoalkyl, straight chained or branched C_2-C_7 alkenyl or alkynyl, or C_3-C_7 cycloalkyl or cycloalkenyl;

wherein R_4 is independently H; $-(CH_2)_uOR_5$; $-(CH_2)_tCONR_5R_6$; $-(CH_2)_uNR_5COR_5$; $-(CH_2)_tCOR_7$; $-(CH_2)_tCO_2R_5$; $-(CH_2)_uNR_5R_6$; $-(CH_2)_uCN$; straight chained or branched C_1-C_7 alkyl; straight chained or branched C_2-C_7 alkenyl or alkynyl; or C_3-C_7 cycloalkyl or cycloalkenyl; or phenyl or C_1-C_6 phenylalkyl; wherein the phenyl or C_1-C_6 phenylalkyl may be substituted with one or more of F, Cl, Br, -CN, $-NO_2$, $-NR_5R_6$, $-SO_2R_5$, $-(CH_2)_nCOR_7$, $-(CH_2)_nOR_5$, $-(CH_2)_nCONR_5R_6$, $-(CH_2)_nNR_5COR_5$, $-(CH_2)_nCO_2R_5$, $-(CH_2)_nSO_2NR_5R_6$, straight chained or branched C_1-C_7 alkyl, perfluoroalkyl, polyfluoroalkyl, or aminoalkyl, straight chained or branched C_2-C_7 alkenyl or alkynyl, or C_3-C_7 cycloalkyl or cycloalkenyl;

or R_3 and R_4 taken together with the nitrogen atom to which they are attached are 1-azetidinyl, 1-pyrrolidinyl, 1-piperidinyl, or 1H-azepanyl, wherein the 1-azetidinyl, 1-pyrrolidinyl, 1-piperidinyl, or 1H-azepanyl is substituted with one or more of F, -CN, $-(CH_2)_nNR_5R_6$, $-SO_2R_5$, $-(CH_2)_nCOR_7$, $-(CH_2)_nOR_5$, $-(CH_2)_nCONR_5R_6$, $-(CH_2)_nNR_5COR_5$, $-(CH_2)_nCO_2R_5$, straight chained or branched C_1-C_7 alkyl, perfluoroalkyl, polyfluoroalkyl, or aminoalkyl, straight chained or branched C_2-C_7 alkenyl or alkynyl, or C_3-C_7 cycloalkyl or cycloalkenyl, or phenyl or heteroaryl; wherein if $-(CH_2)_nNR_5R_6$, $-(CH_2)_nOR_5$, or $-(CH_2)_nNR_5COR_5$ are in the 2-position, then n is not 0; wherein the phenyl or heteroaryl may be substituted with one or more of F, Cl, Br, I, -CN, $-NO_2$, $-NR_5R_6$, $-SO_2R_5$, $-(CH_2)_nCOR_7$, $-(CH_2)_nOR_5$, $-(CH_2)_nCON\ R_5R_6$, $-(CH_2)_nNR_5COR_5$, $-(CH_2)_nCO_2R_5$, $-(CH_2)_nSO_2NR_5R_6$, straight chained or branched C_1-C_7 alkyl, perfluoroalkyl, polyfluoroalkyl, or

aminoalkyl, straight chained or branched C_2-C_7 alkenyl or alkynyl, or C_3-C_7 cycloalkyl or cycloalkenyl;

or R_3 and R_4 taken together with the nitrogen atom to which they are attached are morpholinyl, thiomorpholinyl, [1,4]oxazepanyl, [1,4]thiazepanyl, piperazinyl, or [1,4]diazepanyl, wherein the morpholinyl, thiomorpholinyl, [1,4]oxazepanyl, [1,4]thiazepanyl, piperazinyl, or [1,4]diazepanyl is optionally substituted with straight chained or branched C_1-C_5 alkyl or $(CH_2)_tOR_5$; and wherein the nitrogen atom of the piperazinyl or [1,4]diazepanyl ring may be optionally substituted with $-(CH_2)_uOR_5$; $-COR_5$; straight chained or branched C_1-C_5 alkyl; or phenyl; wherein the phenyl may be substituted with one or more of F, Cl, Br, -CN, $-NO_2$, $-NR_5R_6$ $-(CH_2)_nOR_5$, straight chained or branched C_1-C_3 alkyl, perfluoroalkyl, polyfluoroalkyl, or aminoalkyl;

wherein R_{17} is straight chained or branched C_1-C_4 alkyl, perfluoroalkyl, or polyfluoroalkyl;

wherein each p independently is an integer from 0 to 2 inclusive;

wherein each r independently is an integer from 0 to 3 inclusive;

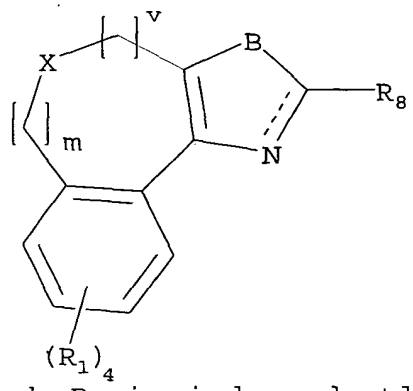
wherein t is an integer from 1 to 4 inclusive;

wherein each u independently is an integer from 2 to 4 inclusive;

or a pharmaceutically acceptable salt thereof to the subject, thereby alleviating the abnormality.

50. (New) The method of claim 49, wherein the abnormality is an eating disorder, obesity, bulimia nervosa, a sexual disorder, a reproductive disorder, depression, an epileptic seizure, hypertension, cerebral hemorrhage, congestive heart failure, or a sleep disturbance.

51. (New) A method of treating a subject suffering from an abnormality wherein the abnormality is alleviated by decreasing the activity of a human Y5 receptor comprising administering to the subject a therapeutically effective amount of a compound having the following structure:



wherein each R_1 is independently H, F, Cl, Br, -CN, -OH, -NO_2, -NR_5R_6, -SO_2R_5, -$(CH_2)_nOR_5$, -$(CH_2)_nCONR_5R_6$, -$(CH_2)_nNR_5COR_5$, perfluoroalkyl, polyfluoroalkyl, aminoalkyl, or straight chained or branched C_1-C_7 alkyl;

wherein R_5 is independently H; or straight chained or branched C_1-C_7 alkyl;

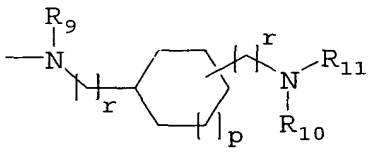
wherein R_6 is independently H; or straight chained or branched C_1-C_7 alkyl;

wherein B is O, NH or S;

wherein X is S, SO or SO_2;

wherein each n independently is an integer from 0 to 6 inclusive;

wherein R_8 is



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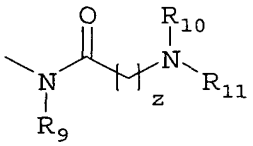

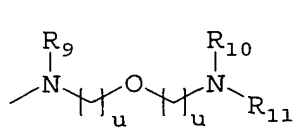
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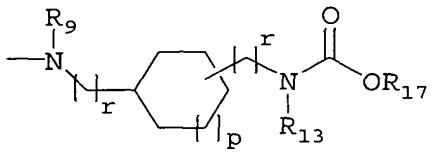
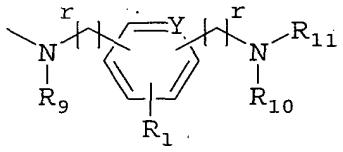
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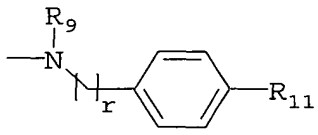
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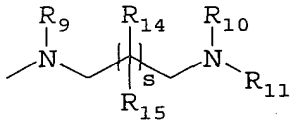
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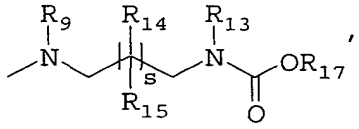
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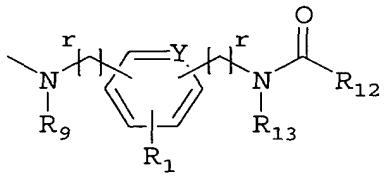
or

;

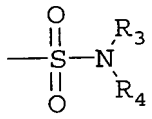
wherein Y is C or N;

wherein R_7 is independently straight chained or branched C_1-C_7 alkyl;

wherein R_9 is independently H; straight chained or branched C_1-C_4 alkyl;

wherein R_{10} is independently H; or straight chained or branched C_1-C_4 alkyl;

wherein R_{11} is



wherein R_{12} is H, straight chained or branched C_1-C_7 alkyl, $(CH_2)_nOR_{17}$, or $O(CH_2)_uOR_{17}$;

wherein R_{13} is independently H; $-(CH_2)_uOR_5$; $-(CH_2)_tCONR_5R_6$; $-(CH_2)_uNR_5COR_5$; $-(CH_2)_tCOR_7$; $-(CH_2)_tCO_2R_5$; $-(CH_2)_uNR_5R_6$; $-(CH_2)_uCN$; straight chained or branched C_1-C_7 alkyl; C_1-C_7 alkyl in which the C_2-C_7 atoms may be optionally substituted with one or more F or Cl; C_3-C_7 cycloalkyl-C_1-C_7 alkyl; straight chained or branched C_2-C_7 alkenyl or alkynyl; or C_3-C_7 cycloalkyl; phenyl or C_1-C_6 phenylalkyl; wherein the phenyl or C_1-C_6 phenylalkyl may be substituted with one or more of F, Cl, -CN, $-NO_2$, $-NR_5R_6$, $-SO_2R_5$, $-(CH_2)_nCOR_7$, $-(CH_2)_nOR_5$, $-(CH_2)_nCONR_5R_6$, $-(CH_2)_nNR_5COR_5$, $-(CH_2)_nCO_2R_5$, $-(CH_2)_nSO_2NR_5R_6$, straight chained or branched C_1-C_7 alkyl, perfluoroalkyl, polyfluoroalkyl, or aminoalkyl;

or R_{12} and R_{13} together with the amide linkage to which they are attached are pyrrolidinonyl, piperidonyl, or oxazolidinonyl;

wherein R_{14} is H; straight chained or branched C_1-C_4 alkyl; F; or $-(CH_2)_rOR_5$;

wherein R_{15} is H, straight chained or branched C_1-C_4 alkyl, or F;

with the proviso that when R_{14} is -OH, R_{15} cannot be F;

wherein R_3 is independently H; $-(CH_2)_uOR_5$; $-(CH_2)_tCONR_5R_6$; $-(CH_2)_uNR_5COR_5$; $-(CH_2)_tCOR_7$; $-(CH_2)_tCO_2R_5$; $-(CH_2)_uNR_5R_6$; $-(CH_2)_uCN$; straight chained or branched C_1-C_7 alkyl; straight chained or branched C_2-C_7 alkenyl or alkynyl; or C_3-C_7 cycloalkyl or cycloalkenyl; phenyl, C_1-C_6 phenylalkyl or C_1-C_6 heteroarylalkyl; wherein the phenyl, C_1-C_6 phenylalkyl, or C_1-C_6 heteroarylalkyl may be substituted with one or more of F, Cl, Br, -CN, $-NO_2$, $-NR_5R_6$, $-SO_2R_5$, $-(CH_2)_nCOR_7$, $-(CH_2)_nOR_5$, $-(CH_2)_nCONR_5R_6$, $-(CH_2)_nNR_5COR_5$, $-(CH_2)_nCO_2R_5$, $-(CH_2)_nSO_2NR_5R_6$, straight chained or branched C_1-C_7 alkyl, perfluoroalkyl, polyfluoroalkyl, or aminoalkyl, straight chained or branched C_2-C_7 alkenyl or alkynyl, or C_3-C_7 cycloalkyl or cycloalkenyl;

wherein R_4 is independently H; $-(CH_2)_uOR_5$; $-(CH_2)_tCONR_5R_6$; $-(CH_2)_uNR_5COR_5$; $-(CH_2)_tCOR_7$; $-(CH_2)_tCO_2R_5$; $-(CH_2)_uNR_5R_6$; $-(CH_2)_uCN$; straight chained or branched C_1-C_7 alkyl; straight chained or branched C_2-C_7 alkenyl or alkynyl; or C_3-C_7 cycloalkyl or cycloalkenyl; phenyl or C_1-C_6 phenylalkyl; wherein the phenyl or C_1-C_6 phenylalkyl may be substituted with one or more of F, Cl, Br, -CN, $-NO_2$, $-NR_5R_6$, $-SO_2R_5$, $-(CH_2)_nCOR_7$, $-(CH_2)_nOR_5$, $-(CH_2)_nCONR_5R_6$, $-(CH_2)_nNR_5COR_5$, $-(CH_2)_nCO_2R_5$, $-(CH_2)_nSO_2NR_5R_6$, straight chained or branched C_1-C_7 alkyl, perfluoroalkyl, polyfluoroalkyl, or aminoalkyl, straight chained or branched C_2-C_7 alkenyl or alkynyl, or C_3-C_7 cycloalkyl or cycloalkenyl;

or R_3 and R_4 taken together with the nitrogen atom to which they are attached are 1-azetidinyl, 1-pyrrolidinyl, 1-

piperidinyl, or 1H-azepanyl, wherein the 1-azetidinyl, 1-pyrrolidinyl, 1-piperidinyl, or 1H-azepanyl is substituted with one or more of F, -CN, $-(CH_2)_nNR_5R_6$, $-SO_2R_5$, $-(CH_2)_nCOR_7$, $-(CH_2)_nOR_5$, $-(CH_2)_nCONR_5R_6$, $-(CH_2)_nNR_5COR_5$, $-(CH_2)_nCO_2R_5$, straight chained or branched C_1-C_7 alkyl, perfluoroalkyl, polyfluoroalkyl, or aminoalkyl, straight chained or branched C_2-C_7 alkenyl or alkynyl, or C_3-C_7 cycloalkyl or cycloalkenyl, or phenyl or heteroaryl; wherein if $-(CH_2)_nNR_5R_6$, $-(CH_2)_nOR_5$, or $-(CH_2)_nNR_5COR_5$ are in the 2-position, then n is not 0; wherein the phenyl or heteroaryl may be substituted with one or more of F, Cl, Br, -CN, $-NO_2$, $-NR_5R_6$, $-SO_2R_5$, $-(CH_2)_nCOR_7$, $-(CH_2)_nOR_5$, $-(CH_2)_nCONR_5R_6$, $-(CH_2)_nNR_5COR_5$, $-(CH_2)_nCO_2R_5$, $-(CH_2)_nSO_2NR_5R_6$, straight chained or branched C_1-C_7 alkyl, perfluoroalkyl, polyfluoroalkyl, or aminoalkyl, straight chained or branched C_2-C_7 alkenyl or alkynyl, or C_3-C_7 cycloalkyl or cycloalkenyl;

or R_3 and R_4 taken together with the nitrogen atom to which they are attached are morpholinyl, thiomorpholinyl, [1,4]oxazepanyl, [1,4]thiazepanyl, piperazinyl, or [1,4]diazepanyl, wherein the morpholinyl, thiomorpholinyl, [1,4]oxazepanyl, [1,4]thiazepanyl, piperazinyl, or [1,4]diazepanyl is optionally substituted with $-(CH_2)_uCOR_5$; $-COR_5$; $-CO_2R_5$; straight chained or branched C_1-C_5 alkyl or $(CH_2)_tOR_5$; and wherein the nitrogen atom of the piperazinyl or straight chained or branched C_1-C_5 alkyl; or phenyl; wherein the phenyl may be substituted with one or more of F, Cl, Br, -CN, $-NO_2$, $-NR_5R_6$ $-(CH_2)_nOR_5$, straight chained or branched C_1-C_3 alkyl, perfluoroalkyl, polyfluoroalkyl, or aminoalkyl;

wherein R_{17} is straight chained or branched C_1-C_4 alkyl, perfluoroalkyl, or polyfluoroalkyl;
wherein m is 0 or 1;

wherein each p independently is an integer from 0 to 2 inclusive;

wherein each r independently is an integer from 0 to 3 inclusive;

wherein each s independently is an integer from 1 to 6 inclusive;

wherein t is an integer from 1 to 4 inclusive;

wherein each u independently is an integer from 2 to 4 inclusive;

wherein v is 1 or 2;

with the proviso that when v is 2, m is 0;

wherein z is an integer from 2 to 7;

or a pharmaceutically acceptable salt thereof to the subject, thereby alleviating the abnormality.

52. (New) The method of claim 51, wherein the abnormality is an eating disorder, obesity, bulimia nervosa, a sexual

disorder, a reproductive disorder, depression, an epileptic seizure, hypertension, cerebral hemorrhage, congestive heart failure, or a sleep disturbance.